

**Response to questionnaire for:
Assessment of strategic plans and policy
measures on Investment and Maintenance in
Transport Infrastructure**

**Country:
Australia**

1 INTRODUCTION

Road

Road transport is the dominant mode of transportation in Australia and it is a vital link that brings people and goods together across the country. Many rely on it to get to work, and to access educational, social and recreational activities. Road transport also connects suppliers to markets and helps showcase our natural environment through tourism. In addition, Australia's widely distributed population, its geographical location and size, and sprawling urban centres contribute to our greater reliance on road transport.

Australia's land transport infrastructure is a valuable asset that makes a significant contribution towards the nation's economic performance and its international competitiveness. The road freight transport industry is an important industry, not only in its own right but also in terms of its role in the general economy. In Australia, the road freight transport sector dominates employment in the *transport and storage* industry. Nationally, total employment in the road transport industry was 238 thousand people in 2011—about 41 per cent of total employment in the overall *transport and storage* sector—and road transport-specific businesses contributed 1.5 per cent of national GDP (BITRE 2012). Road transportation is integral to the ongoing development of the Australian economy and enhances the mobility and quality of life of millions of Australians.

Rail

The railway network consists of around 33 000 route-kilometres of track, with around 10 per cent being electrified. Between 2009 and early 2012, over 330 route-kilometres of track were opened, principally for the export of iron ore and coal. In early 2012 there were more than 230 route-kilometres of railway being constructed, including 37 kilometres of urban railways.

Air

The aviation sector of Australia has experienced many changes in the last 10 years, largely due to the recession in several Asian economies, pandemic outbreaks such as SARS, the introduction of low-cost carriers, the collapse of Ansett Australia Airlines, terrorism incidents and in response, the introduction of new transport security regulations. These changes have influenced not only air passenger movements through Australian airports, but also the development activities of Australian airports. The largest volume of passenger and freight activity is handled through Australia's 8 capital city airports (Adelaide, Brisbane, Canberra, Darwin, Hobart, Melbourne, Perth and Sydney)

1.1 Infrastructure

1.1.1 Road

Annual summaries of road length data classified by road surface in Australia are estimates compiled from an annual BITRE survey of state road authorities.

Table 1 Total road length by road type

	Bitumen concrete km	or Gravel, crushed stone or other improved surface km	Formed only km	Cleared only km	Total km	Percentage of total surface with bitumen or concrete per cent
2007	344 658	262 811	165 467	42 651	815 588	42.26
2008	346 486	262 197	165 740	42 527	816 949	42.41
2009	355 029	262 352	162 984	42 285	822 649	43.16
2010	357 778	260 066	163 833	42 915	825 592	43.34
2011	356 343	261 346	162 165	42 364	823 217	43.29

Data are not readily available for missing years.

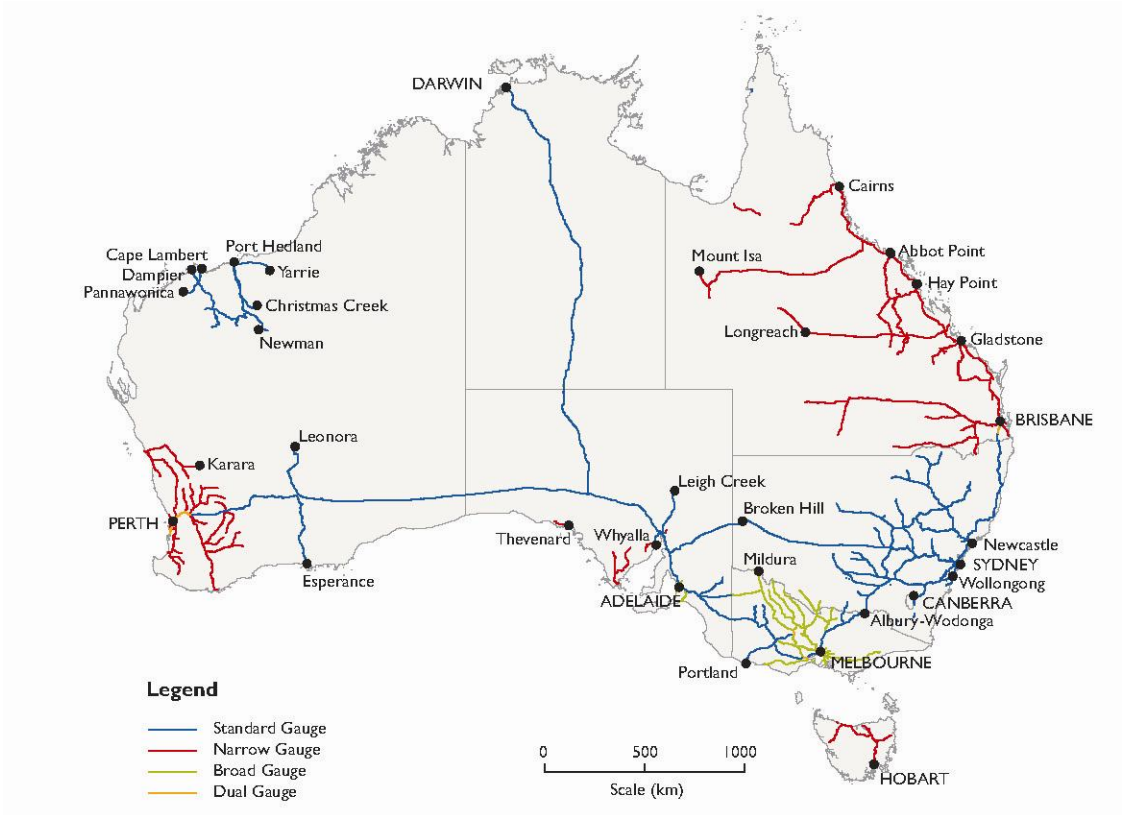
Source: BITRE survey and ABS (2005).

1.1.2 Rail

In common with experiences in other countries, Australia's railway network was constructed with different gauges at different parts of the system. In particular, the network developed outwards from the State capitals, with cross-border links coming only after intrastate lines were well developed. While that legacy remains to this day, interstate trains operate uninterrupted across a common 1 435 mm 'standard' gauge.

There have been key investments in interstate and bulk-haulage railways in recent years. A major addition to interstate operations was the 2004 opening of the Alice Springs - Darwin line. Since that time there has been substantial Commonwealth investment in the interstate network, with new signalling, passing loops and passing lanes; re-railing, re-sleepering and re-ballasting. Additional line capacity and routes have been introduced in the Pilbara iron ore and east coast coal railways. Map 1 shows the open railways including mothballed lines.

Map 1: Australia’s railway network, by track gauge, 2012



Source: BITRE rail database
 Note: The map shows open railways, including mothballed lines.

Table2 Route kilometres of open railway in 2012, by jurisdiction, gauge and electrification

	State or Territory	ACT	NT	NSW	Qld	SA	Tas	VIC	WA	Total
Route-kilometres by gauge										
Broad				73		247		2 961		3 281
Narrow			28	8	7 779	561	687	16	3 516	12 595
Other†				1	88*	22		58	220	389
Standard	6		1 690	7 029	67	3 069		1 217	3 957	17 034
Total	6		1 718	7 110	7 935	3 899	687	4 252	7 692	33 299
Route-kilometres by electrical system										
1 500 V DC				627				456		1 084
25 kV AC					2 037				171	2 208
33 kV AC				8						8
Total				635	2 037			456	171	3 300

Source: BITRE rail database
 Notes:
 a. V denotes volts, kV denotes kilovolts, and Hz denotes hertz. DC denotes 'direct current' and AC denotes 'alternating current'. SA's urban electrified network will be 25 kV AC.
 b. "Open" railways include heritage railways; "mothballed" lines (that is, lines with no scheduled or unscheduled services) are excluded. Queensland's extensive narrow-gauge (610 mm) sugar tram network of around 4 000 route-kilometres are excluded.
 † "other" includes dual-gauge trackage.

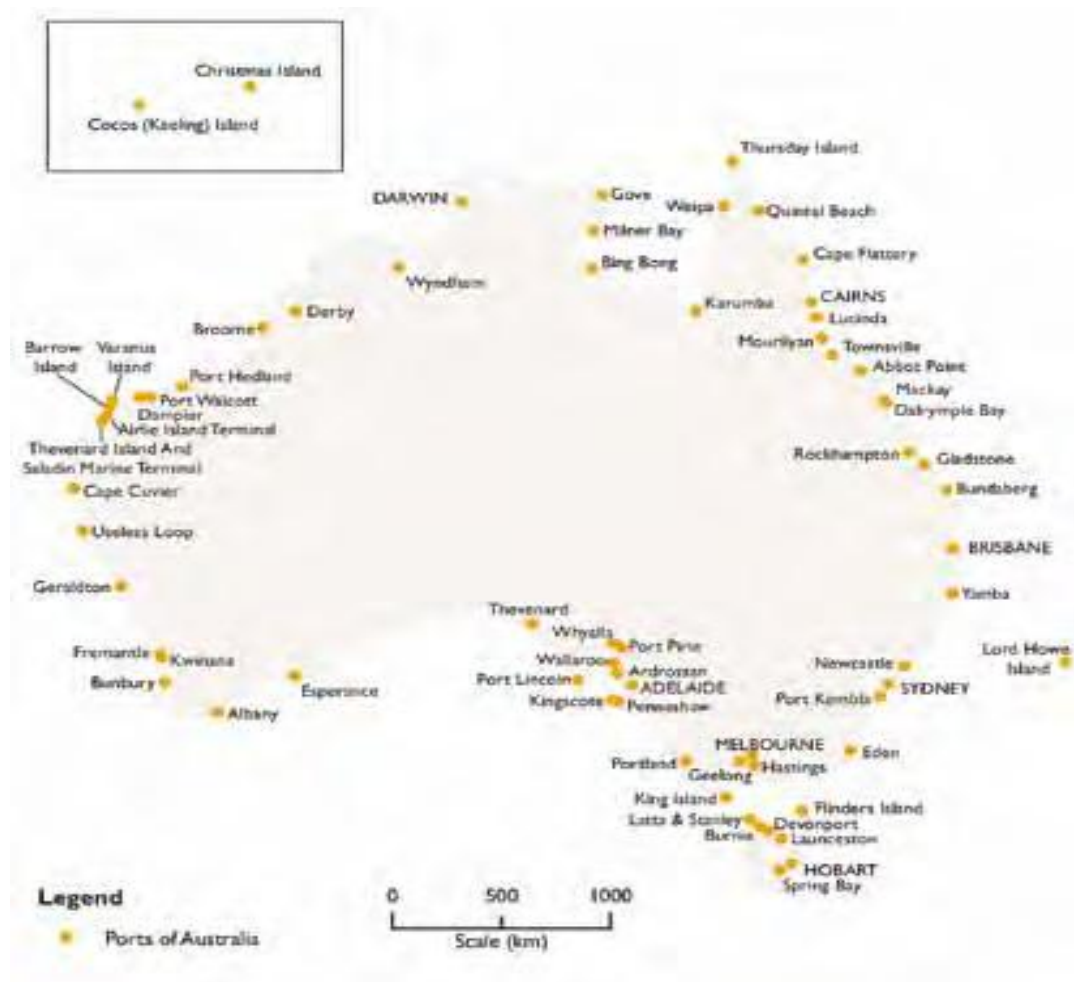
1.1.2 Inland water ways

No data is available on inland waterways.

1.1.2 Seaports

Map 2 shows the location of Australia's major ports. The rest of this sub-section presents in tabular form data about cargo loaded and unloaded at Australia's major ports.

Map 2: Map of selected Australian sea ports



Source: BITRE (2012)

Table 3a Cargo loaded (including exports), by major Australian ports

Financial year	Port Hedland	Dampier	Newcastle	Hay Point	Gladstone	Port Walcott	Weipa	Port Kembla
	million tonnes							
2000-01	72.5	90.4	70.6	70.3	41.3	28.7	13.1	17.6
2001-02	72.5	96.4	72.0	70.3	43.2	27.0	12.9	15.3
2002-03	81.6	101.2	74.0	76.3	44.1	39.6	13.2	13.8
2003-04	89.4	101.6	79.6	78.0	48.0	43.9	13.4	12.7
2004-05	107.9	104.0	81.1	84.8	49.7	56.4	15.4	14.6
2005-06	110.2	111.9	83.1	80.3	52.0	55.2	17.8	16.2
2006-07	111.4	128.1	82.8	86.4	58.4	53.9	19.3	16.2
2007-08	129.9	138.0	90.3	80.3	60.4	56.4	22.1	16.6
(23)								
2005-06	110.2	112.1	83.1	80.3	52.0	55.2	17.8	16.2
2006-07	111.4	128.2	82.8	86.4	58.4	53.9	19.3	16.2
2007-08	129.9	137.9	90.3	80.3	60.4	56.4	22.1	16.6
2008-09	158.0	141.9	92.5	82.0	62.6	56.9	20.5	16.9
2009-10	178.1	169.4	99.8	99.3	67.0	78.7	20.4	18.0

Source: BITRE (2012)

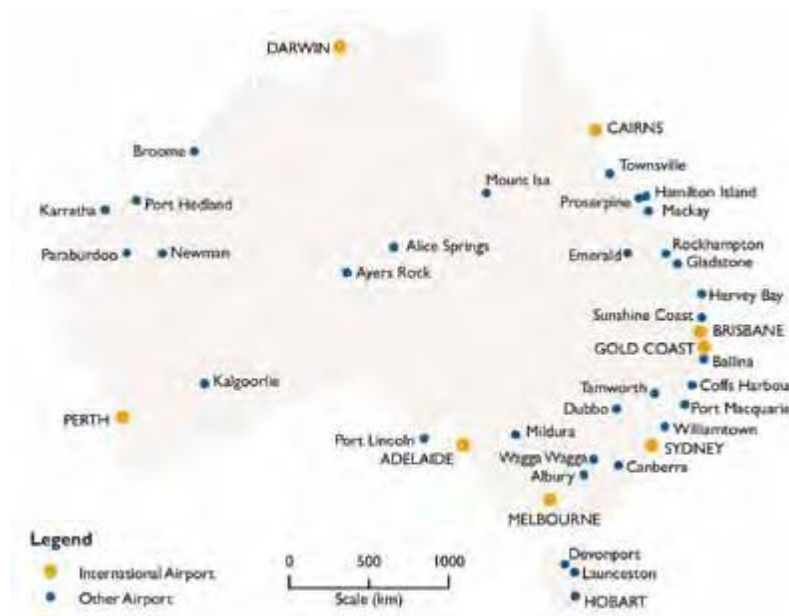
Table 3b Cargo discharged (including imports), by major Australian ports

Financial year	Gladstone	Port Kembla	Geelong	Townsville	Newcastle	Bunbury	Devonport	Dampier
	million tonnes							
2000-01	11.0	9.6	6.0	4.7	3.4	1.2	1.2	0.2
2001-02	11.0	9.5	6.3	4.8	3.5	1.1	1.1	0.2
2002-03	10.9	9.7	6.1	5.6	3.1	1.1	1.3	0.7
2003-04	11.5	9.7	6.9	5.3	2.7	1.0	1.3	0.6
2004-05	13.3	9.9	7.3	5.3	2.9	1.2	1.3	0.5
2005-06	15.3	9.1	7.0	5.6	2.7	1.1	1.3	0.5
2006-07	16.1	9.3	6.9	5.2	3.2	1.2	1.0	0.7
2007-08	15.9	9.8	7.1	5.3	3.2	1.5	1.4	0.9
(23)								
2005-06	15.4	9.1	7.6	5.6	2.7	1.1	1.3	0.6
2006-07	16.1	9.4	6.8	5.2	3.2	1.2	1.0	0.8
2007-08	16.0	9.8	7.1	5.3	3.2	1.5	1.4	1.3
2008-09	16.5	7.1	6.5	4.8	3.1	1.6	1.4	1.3
2009-10	16.7	9.9	6.3	5.9	3.2	1.4	1.4	1.6

Source: BITRE (2012)

1.1.3 Airports

Map 3: Map showing the locations of the top 40 Australian air ports



Source: BITRE (2012)

Table 4a International airline activity at Australia's ports

Financial year	Flights no.	Revenue passengers (a) no.	Available seats no.	Load factor (b) per cent	Freight '000 tonnes
2000-01	93 828	17 126 504	24 565 665	71.1	665.7
2001-02	87 557	16 486 343	22 892 570	73.8	634.3
2002-03	89 374	16 108 417	23 062 891	71.8	635.1
2003-04	100 336	18 131 286	25 885 687	71.5	627.0
2004-05	116 087	20 309 733	29 691 278	69.7	702.4
2005-06	117 790	21 096 951	30 041 002	71.3	726.0
2006-07	119 330	22 137 767	29 768 595	75.6	754.5
2007-08	124 176	23 264 573	30 625 242	77.1	781.0
2008-09	131 560	23 486 506	32 174 834	74.2	709.4
2009-10	141 194	25 625 654	34 309 383	75.7	760.0
2010-11	150 440	27 549 289	36 923 253	75.5	822.5

Notes: (a) Revenue passengers are fare paying passengers (b) These are the number of international revenue passengers divided by the number of available seats.

Source: BITRE (2012)

Table 4b: Domestic airline activity at Australia's airports

Financial year	Flights	Revenue passengers (a)	Revenue passenger kilometres (b) '000	Available seats '000	Available seat kilometres '000	Domestic load factor (c) per cent	Freight '000 tonnes
2000-01	625 903	34 105 561	35 014 922	47 541	46 709 057	74.96	
2001-02	493 750	30 510 909	32 300 227	41 596	42 265 977	76.42	
2002-03	484 895	32 104 317	35 103 726	43 207	45 534 719	77.09	
2003-04	501 771	36 410 853	40 402 092	47 683	51 741 384	78.08	
2004-05	544 317	40 435 504	45 047 723	53 859	58 303 803	77.26	
2005-06	545 410	42 531 425	47 782 489	56 532	61 808 822	77.31	284.11
2006-07	541 497	45 827 236	52 022 148	59 121	65 670 698	79.22	271.64
2007-08	562 366	49 278 702	56 191 023	63 873	71 066 014	79.07	295.09
2008-09	563 251	50 238 844	57 551 882	65 494	73 181 409	78.64	243.17
2009-10	578 305	51 756 690	59 026 300	66 600	74 216 666	79.54	236.18
2010-11	610 829	54 755 322	63 154 861	70 615	80 273 520	78.67	237.44

Notes: (a) Revenue passengers are fare paying passengers (b) Revenue passenger kilometers are calculated by multiplying the number of revenue passengers travelling on each flight stage by the distance in kilometres between the airports. (c) These are the number of international revenue passengers divided by the number of available seats.

Source: BITRE (2012)

1.2 Performance

1.2.1 Congestion

Under this sub-heading we discuss congestion in Australia's major cities Road. Information about congestion for other modes is not readily available partly because congestion is not as serious for those modes as it is slowly becoming for the road sector. Motor vehicle travel within Australian cities has grown enormously over the last 60 years – with current levels of urban kilometres travelled by passenger cars being over 15 times greater than during the 1950s. Furthermore, metropolitan vehicle travel in Australia is expected to continue to grow appreciably over the next decade and a half. The main 'drivers' of growth in overall transport demand have traditionally been increases in population and average income levels. Future increases in Australian urban passenger travel are likely to be more dependent on the rate of population increase – and less dependent on increases in general prosperity levels. Table 5 shows for average network delay due to congestion for Australian capital cities.

Table 5: Base case projections for average network delay due to congestion for Australian metropolitan areas, selected years between 1990 and 2020

<i>(minutes per km)</i>									
<i>Year</i>	<i>Syd</i>	<i>Mel</i>	<i>Bne</i>	<i>Adl</i>	<i>Per</i>	<i>Hob</i>	<i>Dar</i>	<i>Cbr</i>	<i>Total</i>
1990	0.285	0.281	0.185	0.216	0.177	0.115	0.061	0.107	0.243
2000	0.318	0.276	0.264	0.257	0.236	0.136	0.081	0.130	0.274
2001	0.306	0.276	0.245	0.249	0.232	0.132	0.080	0.128	0.266
2002	0.319	0.298	0.234	0.256	0.235	0.136	0.084	0.134	0.277
2003	0.317	0.298	0.259	0.262	0.239	0.135	0.085	0.135	0.280
2004	0.345	0.332	0.280	0.280	0.256	0.141	0.090	0.143	0.306
2005	0.350	0.335	0.286	0.283	0.261	0.141	0.091	0.143	0.310
2006	0.358	0.342	0.294	0.288	0.267	0.142	0.093	0.145	0.317
2007	0.374	0.356	0.308	0.299	0.279	0.145	0.096	0.150	0.331
2008	0.390	0.370	0.323	0.309	0.291	0.148	0.099	0.154	0.345
2009	0.407	0.386	0.338	0.321	0.304	0.151	0.101	0.159	0.359
2010	0.421	0.399	0.352	0.330	0.315	0.153	0.104	0.163	0.372
2015	0.475	0.445	0.407	0.363	0.359	0.158	0.113	0.176	0.419
2020	0.527	0.488	0.464	0.393	0.402	0.162	0.122	0.188	0.464

Note: Relative to estimated free speeds.

Syd= Sydney, Mel= Melbourne, Bne= Brisbane, Adl= Adelaide, Per =Perth, Hob = Hobart, Dar = Darwin, Cbr = Canberra

Source: BITRE (2007)

1.2.2 Reliability

Rail: Intermodal freight trains

It is difficult to agree between the below rail managers of infrastructure and the above rail train operators on a good measure of reliability. As a proxy for reliability in Australia use is made of an indicator that measures the annual average actual transit time of intermodal trains by line segment. The analysis uses infrastructure managers' records, for a 12 month period, of recorded train arrival and departure times at city terminals. Table 6 presents actual transit times based on this data. A comparison between the scheduled transit times against the actual is a good indicator as to whether trains on a given line segment are reliable. The relatively high number of derailment incidents on the East-West corridor in 2008-09 means that actual times are significantly higher than scheduled times in that year. In 2009-10 fewer such incidents occurred, and the scheduled and actual transit times are closer together.

Table 6 Number of weekly intercity intermodal services and transit times by city pair

	Average transit time (hours)							
	June		Scheduled		Revised schedule		Actual	
	09	10	08-09	09-10	08-09	09-10	08-09	09-10
North-South corridor								
Brisbane to Sydney	18.3	18.4	no data	no data			no data	
Sydney to Brisbane	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sydney to Melbourne	n/a	n/a	14.1	13.6	14.3	13.7	14.7	14.5
Melbourne to Sydney	n/a	n/a	14.0	13.1	14.0	13.7	14.2	14.1
Brisbane to Melbourne	35.4	34.4	35.4	34.8	35.7	35.0	36.9	35.5
Melbourne to Brisbane	33.8	32.9	34.9	33.1	35.5	33.5	36.1	34.0
Brisbane to Adelaide	53.7	52.9	54.4	53.4	54.7	53.5	54.5	52.5
Adelaide to Brisbane	53.9	55.2	55.4	54.4	56.7	54.6	56.9	54.7
East-West corridor								
Melbourne to Adelaide	13.2	13.5	12.6	12.6	12.7	12.6	12.9	12.9
Adelaide to Melbourne	14.4	13.8	13.8	13.8	13.8	13.9	14.2	13.8
Melbourne to Perth	54.2	56.8	54.8	53.9	56.6	54.1	57.3	53.9
Perth to Melbourne	65.2	63.9	67.8	67.4	68.4	67.9	69.0	67.7
Sydney to Perth	59.5	61.6	60.1	57.8	61.9	57.8	62.5	57.6
Perth to Sydney	65.9	67.0	69.2	68.2	71.0	68.6	72.2	69.8
Adelaide to Perth	42.7	42.7	43.2	41.1	43.3	41.1	40.3	37.3
Perth to Adelaide	44.2	44.2	45.3	45.3	45.3	45.3	44.2	43.7
Central corridor								
Adelaide to Darwin		43.4	no data	43.3	no data	43.3	no data	46.0
Darwin to Adelaide		45.5	data	45.5	no data	45.5	data	47.5

Note: Actual or scheduled times were not available between Adelaide and Darwin for 2008-09, or between Brisbane and Sydney for either year. n/a is used where no trains with that origin/destination pair ran in that year.

Source: BITRE estimates based on data provided by infrastructure managers: ARTC, RailCorp, Brookfield Rail and Genesee & Wyoming Australia.

Air

In Australia, airline on time measures are provided in terms of on time departures (flights that depart within 15 minutes of the scheduled departure time), on time arrivals (flights that arrive within 15 minutes of the scheduled arrival time) and cancellations (flights cancelled or rescheduled within seven days of the scheduled departure time). Table 7 summarises results for the seven financial years to 2010-11. Participating airlines are Jetstar, Qantas, QantasLink, Regional Express, Skywest, Tiger, Airways and Virgin Australia.

Table 7 Domestic on-time performance

Financial year	Sectors scheduled	Cancellations per cent	Sectors flown	On-time departures per cent	On-time arrivals per cent
2004-05	430 714	0.9	426 662	87.0	86.4
2005-06	457 817	1.0	453 406	87.0	85.7
2006-07	467 907	0.8	463 981	86.9	85.6
2007-08	496 564	1.7	488 112	80.6	78.8
2008-09	502 291	1.7	493 710	81.1	79.7
2009-10	502 106	1.0	497 268	85.6	84.4
2010-11	527 708	1.6	519 255	80.6	78.8

Source: BITRE (2012)

2 MAJOR PROJECTS AND FUNDING

The Australian Government is advancing in a wide range of priority projects aimed at improving infrastructure and increasing the economy's productive capacity.

Specifically, through the Nation Building (NB) agenda, the Government will invest \$36.2 billion on land transport infrastructure over the six year period from 2008-09 to 2013-14, including \$6.9 billion for the Nation Building Plan for the Future from the Building Australia Fund.

The Department of Infrastructure and Transport –Nation Building and Infrastructure Investment Division is delivering this investment through a range of road and rail programs and projects across the National Land Transport Network (NLTN). The network is based on national and inter-regional land transport corridors that are of critical importance to national and regional growth.

There have been a wide variety of projects undertaken and outcomes achieved under the NB Program to date. This has ranged from major road construction activities (such as duplications, bypasses and realignments) and significant rail upgrades being

undertaken under the National Network Investment Program, to much smaller, local road projects being undertaken through the Roads to Recovery and Black Spot programs, the construction of heavy vehicle rest areas and the installation of boom gates at level crossings. With the establishment of the Building Australia Fund the Australian Government is investing in major road, rail and port projects across Australia based on advice from Infrastructure Australia. The Australian Government has also invested more than \$7 billion in major public transport projects.

The Regional Infrastructure Fund (RIF) has also been established to allow the government to invest the proceeds of a resurgent resource boom to address urgent infrastructure needs, while supporting the mining industry, boosting export capacity and developing and growing regional economies.

The RIF is part of a package of measures associated with the Minerals Resource Rent Tax (MRRT). The MRRT received Royal Assent on 29 March 2012. The Australian Government will invest \$6 billion over 11 years commencing 2010–11.

Funding for four Regional Infrastructure Planning projects have been announced, two in Queensland, one in New South Wales, and one in South Australia.

- Queensland:
 - \$1.66 million for North Queensland Resources Supply Chain project, which will operationalise the "50 Year Infrastructure Plan for North Queensland" and develop a comprehensive infrastructure demand model.
 - \$1.5 million for Central Queensland Resources Supply Chain project, which will develop the Central Queensland Planning and Infrastructure Framework.
- New South Wales:
 - \$450,000 for the Hunter Economic Infrastructure plan, which will enable a whole of supply chain view of mining related activities in the Hunter Region. The objective of the plan is to determine what economic infrastructure is required to further enable the development of communities that support the mining sector and alleviate any current or potential capacity constraints.
- South Australia:
 - \$1.5 million for Regional Mining and Infrastructure Plans across three regions, the Yorke and mid-North/Braemar region; the Far North region; and the Eyre and Western region. The plans will identify current and potential mining projects, and examine potential locations for strategic infrastructure corridors and hubs.

The Australian Government has made significant investment aimed at improving the movement of freight through projects including:

- Local and national freight distribution by undertaking a \$1.1 billion upgrade of the Northern Sydney Freight Corridor (NSFC). A major link on the interstate rail network servicing Melbourne, Sydney and Brisbane.
- The Port Botany Rail Line, a \$1 billion dedicated freight line is being built in Sydney. It will effectively lift the capacity of the Port Botany rail line by more

than 30 per cent resulting in fewer truck movements on the road network in and around Sydney.

The Australian Government has also made significant investment in long term project planning, including:

- The High Speed Rail Study – two phase study looking at potential routes linking Brisbane to Sydney, Canberra and Melbourne, and the economic viability of a high speed rail network.
- The joint Study on Aviation Capacity for the Sydney Region – to inform future aviation infrastructure planning and investment.
- The Melbourne-Brisbane Inland Rail Alignment Study – aimed to provide the government and the private sector with information to help guide future investment decisions.

Funding of Infrastructure projects is typically financed through the Australian Government, state governments, local government and private sector.

The Australian Government recognizes that PPPs can make a valuable contribution to the delivery of infrastructure and services throughout Australia and are therefore encouraged, where appropriate, by the Australian Government across jurisdictions. They have proven in the past to be a valuable infrastructure procurement method increasing private sector involvement and finance to deliver complex major projects. PPPs provide an important means for improved service delivery and better value for money through the appropriate transfer of risk. They also encourage innovation and an integrated, whole-of-life management of projects underpinned by private financing.

In 2008 the National Public Private Partnership (PPP) Policy and Guidelines were released and aim to encourage greater participation from the private sector in delivering key infrastructure projects. Governments are now required to consider using PPPs in delivering key infrastructure projects valued at \$50 million or more, where they provide value for money over other funding options. The Policy and Guidelines can be found at <
http://www.infrastructureaustralia.gov.au/public_private/>.

The Nation Building Program Memorandum of Understanding (MOU) with each jurisdiction provides an annual allocation of funds to assist in the maintenance of the roads in the National Land Transport Network (NLTN). It incorporates the major transport routes across Australia and, under the current MOUs, the states/territories also contribute to the maintenance of the network.

This funding is shared by the jurisdictions under an agreed formula, based on equal weightings for lane length; total vehicles travelled and total heavy vehicle use. NLTN road maintenance funding is conditional on the roads being maintained at an acceptable standard with respect to seal age and ride quality.

The Australian Government recognizes that carefully designed and targeted investments in infrastructure and particularly transport infrastructure will facilitate trade, strengthen competition (lowering costs) and improve specialization of labour and the sharing of technologies and practices.

The Australian Government directs funding at those projects of greatest significance and with greatest potential to improve productivity.

Infrastructure Australia (IA) assists governments to better target the allocation of infrastructure funding. This independent, expert advice is helping to drive the development of a long term, national approach to infrastructure planning and investment.

The Australian Government is open to alternative infrastructure financing and funding solutions. The Commonwealth Infrastructure Investment Framework is a set of principles that were developed to promote reforms in the infrastructure market and maximize the benefits from government infrastructure investment. The principles highlight the Australian Government's desire to attract more private sector investment in infrastructure and its focus on nationally significant infrastructure that leads to greatest productivity returns.

In recognising the need for greater infrastructure investment, the Infrastructure Finance Working Group (IFWG) was established to identify current barriers to attracting infrastructure finance and to develop options to encourage greater private sector investment. In 2011, the IFWG investigated ways to improve the capacity of governments to invest in infrastructure projects, as well as explore possible improvements to the ways in which the private sector currently invests.

The released report *Infrastructure Finance and Funding Reform* can be found at < <http://www.infrastructure.gov.au/infrastructure/iff/index.aspx>>.

3 STRATEGIC PLANS

The Australian Government recognises that if Australia is to maintain or improve its high quality of life and remain internationally competitive, economic reform and nation building must be a top priority. Australia needs to not only invest in new, large scale projects, but to link this investment to its long term planning and reform agendas.

In the 2012-13 Budget, the Australian Government released the framework for the next phase of the National Building Program which will run from 2014-15 to 2018-19. The Nation Building Program publications can be found at < http://www.infrastructure.gov.au/department/statements/2012_2013/index.aspx>

Through Nation Building 2 (NB2), the Australian Government is renewing its focus on productivity through investment in our national road and rail networks. The

overarching objective of NB2 will be to 'lift Australia's productivity through nationally significant land transport infrastructure'.

NB2 will build upon the successes to date and provide a solid foundation for addressing our transport infrastructure needs into the future. This investment will be made in partnership with state, territory and local government, as well as with industry, to ensure that the right projects are delivered at the right time.

To help to inform future infrastructure investment decisions, the Australian Government Department of Infrastructure and Transport is developing 'Network Strategies' for land transport infrastructure in key areas across the nation. The development of these strategies will assist in gaining a greater understanding of the critical capacity and safety issues that face Australia's National Land Transport Networks in the future. The strategies will consider both freight and passenger transport across road and rail. Network Strategies will be developed for the five major capital cities, Sydney, Melbourne, Brisbane, Perth and Adelaide and for the movement of freight within the mainland east coast. The strategies will provide an evidence base to inform future Commonwealth Government investment in land transport infrastructure.

The development of the National Ports Strategy and the National Land Freight Strategy is intended to provide a coordinated, long-term blue print to guide policy and investment decisions into the future. The driving outcome of this approach is to maximize the efficient movement of freight to and from ports and around Australia.

The release of the Australian Government's National Urban Policy recognizes the critical roles of Australian Government, state, territory and local governments, the private sector and individuals in planning, managing and investing in cities. The policy has been established to progress practical measures to promote more productive sustainable and livable cities and contains the:

- Livable Cities and Urban Renewal Program;
- National Smart Managed Motorways Trial; and
- Suburban Job initiative.

On Friday 7 September 2012 the Australian Government released the nation's first ever National Land Freight Strategy, a long term blueprint for a streamlined, integrated and multimodal transport system capable of moving goods into and out of major ports and around our country quickly, reliably and at the lowest cost.

The Strategy is underpinned by a number of key principles:

- **One national, integrated network:** Replacing fragmented, ad hoc decision-making with a proper, long term planning approach that identifies the existing and yet-to-be built roads, rail lines, intermodals, ports and airports which together form a workable, truly national freight network. This process would endeavour to protect current and future transport corridors and other strategic pieces of land from urban encroachment.

- **Better use of our existing infrastructure:** Over the long term it will be far smarter and cheaper to get the most out of our existing infrastructure than to always build anew. In practice this could mean fitting new technology to improve traffic flows along major motorways, using higher productivity vehicles, creating dedicated freight routes and separating passenger trains from freight trains.
- **Fairer, more sustainable financing arrangements:** While in recent years there's been a surge in spending on the nation's roads (up 50 per cent), railways (up 118 per cent) and ports (up 305 per cent), building and maintaining a network fit for purpose requires mechanisms for ensuring the right investment occurs in the right place at the right time.

Investor confidence in the funding of infrastructure continues to be the major challenge to achieving the infrastructure investment commitments.

To further encourage greater private sector investment, the Australian Government has established the National Infrastructure Construction Schedule (NICS) providing a single, national view of the infrastructure funded, in whole or part, by the three levels of government in relation to planned and tendered infrastructure projects that:

- have a public commitment by government to fund its construction generally with a capital value of \$50 million or more (\$20 million for the smaller states); and
- Cover all industry sectors and all jurisdictions.

It provides, for the first time, potential investors and constructors with detailed information on upcoming major infrastructure projects. The NICS website can be accessed at www.nics.gov.au.

The Australian Government is also working with the states and territories to improve approaches to managing forecasting and patronage risk for infrastructure projects such as toll roads to encourage greater transparency and investor confidence. In early 2012, the Department released the Addressing Issues in Patronage Forecasting for PPP/Toll Roads Consultation Paper seeking the views of Industry Participants and other interested parties on the potential issues and remedies for managing demand forecasting and patronage risk in PPP/toll road projects.

During September 2012, the Australian Government released the Report entitled: Disincentivising Overbidding for Toll Road Concessions prepared by Dr Robert Bain for the Department. This report draws on lessons learnt through international experience and practice within the toll roads sector. It presents conclusions and outlines best practice principles on how overbidding for future concessions might be disincentivised for future toll road projects in Australia. The key conclusions highlighted in the report are:

- a. key policy objectives should focus on forecasting realism rather than accuracy, with the elimination of clearly biased overinflated submissions;

- b. procurement practice needs to ensure that the downside for submitting unrealistically high traffic and revenue forecasts are greater than any upside;
- c. incentives for excessive risk taking should be avoided in concession design, yet concessionaires should not be insulated from traffic risk;
- d. greater attention needs to be directed to capital structures of bids with potential focus on greater equity or 'skin in the game';
- e. bidding processes need to be realigned to avoid aggressive price-based competitions and deal scarcity that often drive overbidding; and
- f. Greater use should be made of independent technical and commercial oversight of bidders' plan.

The Australian Government, through the Infrastructure Working Group (IWG) is currently assessing this report in detail, with a view to progressing its recommendations.

3.1 Long Term

The Australian Government released the framework for the next phase of the Nation Building Program which will run from 2014-15 to 2018-19. The next phase of the program will include the following program themes:

- Moving freight;
- Connecting people;
- Safety; and
- Innovation.

These project themes underpin the overarching objective of NB2, which is to lift Australia's productivity through nationally significant land transport infrastructure.

3.2 Mid Term

Through the Nation Building agenda, the Australian Government will invest \$36.2 billion on land transport infrastructure over the six year period of 2008-2008 to 2013-14, including \$6.9 billion for the Nation Building Plan for the future from the Building Australia Fund.

Over the next 12 months, a full schedule of major road, rail and public transport projects will be finalized in consultation with Infrastructure Australia, industry as well as state and territory governments.

Of the 47 major upgrades scheduled to be delivered across the Interstate Rail Network under the existing National Building Program (2008-09 to 2013-14), 22 are completed and a further 17 are underway.

4 ASSESSMENT METHODOLOGY

The Australian Government released the framework for the next phase of the Nation Building Program which will run from 2014-15 to 2018-19.

Investment through NB2 will be focused on four cornerstone themes to support this overarching objective to 'lift Australia's productivity through nationally significant land transport infrastructure':

- **Moving Freight**- improved efficiency in the transport and logistics industry results in reduced input costs all the way through supply chain, providing productivity gains across the economy
- **Connecting People** – to ensure efficiency, productivity and sustainability of vital connections between national highways, major regional roads, rail links, urban corridors, suburban streets and rural byways.
- **Safety** – taking a national leadership role in road safety and providing substantial funding for road safety projects and programs that upgrade road networks.
- **Innovation** – undertaking review of existing projects provides an opportunity to assess potential shortcomings in existing approaches, and to identify innovative ways to improve process and achieve greater value for money for future projects.

Each theme will consist of three subcomponents, each with their own objectives to support and complement the overarching program objective.

For projects over \$100 million seeking funding under NB2, the assessments will be conducted by Infrastructure Australia (IA) against the Infrastructure Australia's Reform and Investment Framework <http://www.infrastructureaustralia.gov.au/reform_investment/>. IA is assisting government to better target the allocation of infrastructure funding. This independent, expert advice is helping to drive the development of a long term, national approach to infrastructure planning and investment.

The Department of Infrastructure and Transport will provide strategic and detailed implementation advice. The Department will also review projects under \$100 million using a merit based process. Together these measures will ensure that Australian Government funding is directed at those projects of greatest national significance and with the greatest potential to improve productivity.

Key projects funded under NB2 will also be required to demonstrate links to significant national policies including: the Commonwealth Infrastructure Investment Framework; the National Ports Strategy; the National Urban Policy; and the forthcoming National Land Freight Strategy.

The Nation Building Program specifically targets projects that will deliver the highest benefits to the nation. The Bureau of Infrastructure, Transport and Regional Economics has calculated the benefit costs ration (BCR) for 128 road and rails Nation Building projects, accounting for around 91 per cent of the total value of new capital investment being delivered through the current program. The indicative findings from this analysis shows that, as at April 2012, the national average BCR is nearly 2.7 – or around \$62 billion in benefits to 2025 (in 2008 – 09 prices). In terms of the direct productivity benefits – largely as a result of travel time savings – Nation Building projects are, in total, expected to save the road freight industry 1.3 per cent of costs and the rail freight industry 2.7 per cent of costs by 2016.

References

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